



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,691	04/16/2004	Francois Baccelli	017346-0180	8855

22428 7590 04/20/2007
FOLEY AND LARDNER LLP
SUITE 500
3000 K STREET NW
WASHINGTON, DC 20007

EXAMINER

NGUYEN, SIMON

ART UNIT	PAPER NUMBER
----------	--------------

2618

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/825,691

Applicant(s)

BACCELLI ET AL.

Examiner

SIMON D. NGUYEN

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15, 17-31, 33, 34 and 36-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 15, 17-31, 33-34, 36-41 is/are rejected.
- 7) ☒ Claim(s) 8-14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7, 21-31, 33, 38-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vanghi (2002/0155854) in view of Laakso (6,671,512).

Regarding claim 1, Vanghi discloses a communication network comprises a BSC, a plurality of BSs, and mobile stations (fig.1, abstract), wherein the network controls a down-link transmission power from the BSs to a given mobile station, comprising: computing the attenuation between the mobile and each base stations and the limit of the total power emitted by each base station (considered both as a first elementary quantity or initiate transmit power level set by the BSC in abstract of Vanghi) (paragraphs 10, 15, abstract); the product (an adjust power level after received a feedback command from the mobile station) of the first elementary quantity (initiate power level) by a second elementary quantity (a power control command received from the mobile station) taking into account the requirements of the mobile vis-à-vis its base stations and the attenuation between the mobile and its base station (paragraphs 16,

Art Unit: 2618

22-26, 28-39), and control of the link based on the base station loading (paragraphs 26, 35, 39, 55). However, Vanghi does not specifically disclose a load indicator.

Laakso discloses apparatus and method for traffic load and power controls (abstract), comprising the step of controlling links between base stations and mobile stations based on a load indicator (figs. 1, 3a-c, column 4 lines 20-35, column 9 line 63 to column 10 line 4, column 19 lines 8-22). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have Vanghi, modified by Laakso to balance a base station's power with a load requirement order to prevent dropped calls or interferences.

Regarding claim 25, this claim is rejected for the same reason as set forth in claim 1, wherein Vanghi further discloses a load calculator (paragraphs 35, 39) and wherein Laakso discloses a load calculator (column 11 line 44 to column 12 line 4).

Regarding claim 2, 26-28, Vanghi further disclose the BSC computing a load to a number of BSs in the active set of MS 102 (paragraphs 13, 27, 35). It should be noted that even though Vanghi does not specifically disclose as claimed but the teaching of Vanghi comprised the claimed steps (paragraphs 33-48) to know how much power needed in the network in order to handle the traffic load (paragraphs 10, 14, 52).

Regarding claims 3-6, 29-31, Vanghi further discloses the division of the limit on total power emitted by the nearby stations (paragraphs 12, 33) and the multiplication of the value between the serving station and the nearby station (22, 29, 39, 43, 45), summing all values of the base station on the mobile station with adding noise;

computing the difference between the power emitted with a load threshold (paragraphs 30-46).

Regarding claims 7, 33, Vanghi further discloses the power control is adjusted based on data rates to satisfy the quality of signal (paragraph 9, 14, 15, 25-29, 47-49, 52). It should be noted that for adding a fixed data rate demand, the sum is inherently greater than the load threshold because the power in the network limit for traffic channel, if there are more traffic channel, the network inherently reduces a number of mobile stations in order to have enough power to handle the traffic.

Regarding claim 21-23, 38-40, Vanghi discloses computing the S/N ratio with a threshold between the mobile and the base station (paragraphs 4, 23, 30, 32-38), bit rate (paragraphs 42, 44, 46).

Regarding claim 24, 41, Vanghi discloses the mobile station communicating a variable data rate, in which the network computes the total power transmitted based on the data rate (paragraphs 9, 14-15, 29, 47, 52).

3. Claims 15, 17-18, 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vanghi (2002/0155854), in view of Laakso, and further in view of Ishikawa et al. (2002/0107021).

Regarding claims 15, 17-18, 34, Vanghi further discloses an access control to the base station associated with a data rate demand (paragraphs 9, 14, 15, 29, 47, 52), wherein the down link power control computation including a given mobile (paragraphs

13, 22, 55) and the data value is stored (paragraph 38). However, Vanghi does not specifically disclose the step of iterating for a new call.

Voyer discloses the iterative of computing the transmission power for a new call (paragraphs 69, 77, 86, 91, 96, 97, 103, 108). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have Vanghi, modified by Voyer in order to prevent a disrupted call.

4. Claims 19-20, 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vanghi (2002/0155854) in view of Laakso and Voyer (2001/0053670), and further in view of Ishikawa et al. (2002/0107021).

Regarding claims 19-20, 36-37, the modified Vanghi fails to teach rejecting a call.

Ishikawa discloses the network computes the transmission power of the network for a new call and if the power exceeds a threshold the call is rejected (paragraphs 42, 44, 45, 48, 52). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to have Vanghi, modified by Ishikawa in order to prevent the noise/interference may be caused by the low power transmission.

Allowable Subject Matter

5. Claims 8-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 8, the prior art of record does not specifically disclose the sequence steps as claimed in case of the mobiles have a fixed data rate demand.

Regarding claim 9-14, these claims are objected as being dependent upon dependent claim that has been objected.

Response to Arguments

6. Applicant's arguments with respect to claims 1-15, 17-31, 33-34, 36-41 have been considered but are moot in view of the new ground(s) of rejection.

The previously cited art issued to Laakso discloses most claimed limitations of independent claims 1 and 25, and arguments in Remarks, in which Laakso discloses the network computing the traffic load of all base stations serving mobile stations in the network along with the uplink/downlink transmission power in order to control the traffic load (figs.1, 3A-C, column 4 line 45 to column 9 line 30, and see the rejection).

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Simon Nguyen whose telephone number is (571) 272-7894. The examiner can normally be reached on Monday-Friday from 7:00 AM to 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F. Urban, can be reached on (571) 272-7899.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 306-0377.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
600 Dulany, Alexandria, VA 22314

Or faxed to:

(571) 273-8300 (for formal communications intended for entry)

Hand-delivered response should be brought to Customer Service Window located at the Randolph Building, 401 Dulany, Alexandria, VA, 22314.

Application/Control Number: 10/825,691
Art Unit: 2618

Page 8

Simon Nguyen

April 10, 2007

A handwritten signature in black ink, appearing to read 'Snguyen', written in a cursive style.

**SIMON NGUYEN
PRIMARY EXAMINER**